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MYCOLOGIA

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ILLUSTRATIONS OF FUNGI—XIX

WILLIAM A. MURRILL

The accompanying illustrations,¹ including the two halftone plates, were all made from specimens collected in and near New York City. Four of the species described are known to be edible, one of them, *Agaricus arvensis*, being an important edible species in many parts of Europe.

Collybia radicata (Relh.) Quél.

ROOTING COLLYBIA

Plate 137. Figure 1. $\times 1$

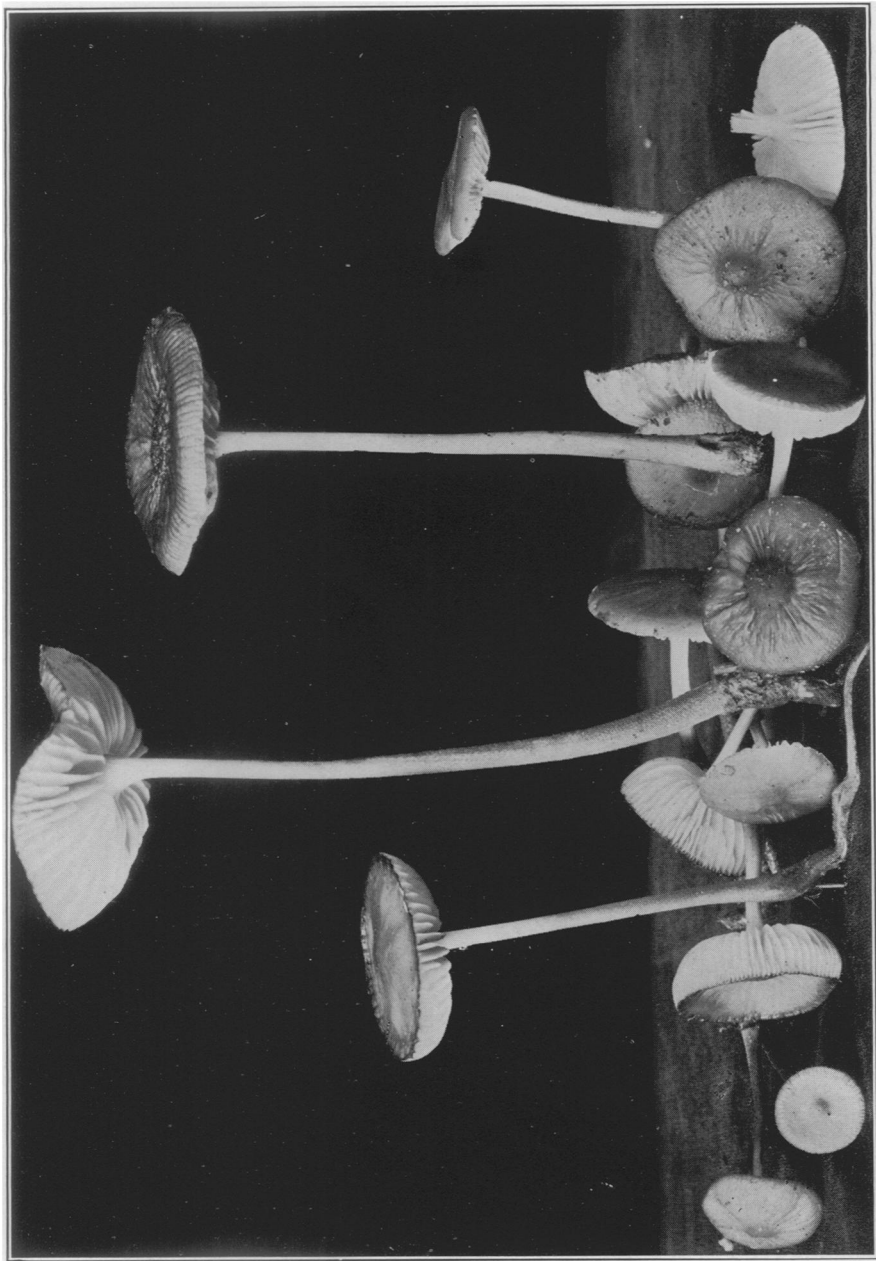
Plate 138. Slightly reduced

Pileus fleshy, thin, convex to nearly plane, 3–7 cm. broad; surface smooth, viscid when moist, often radiate-rugose, grayish, grayish-brown, or umbrinous, the center usually darker; context white; lamellae white, broad, rather distant, adnexed; spores ellipsoid, hyaline, with a slight oblique apiculus at one end, $15\text{--}17 \times 10\text{--}12\mu$; stipe long, with a very long root, slender, firm, generally slightly tapering upward, stuffed, white above, concolorous or slightly paler below, 10–20 cm. long, 4–8 mm. thick.

This common and widely distributed edible species may be looked for in open deciduous woods. In the vicinity of New York City, the typical form figured occurs most frequently about beech stumps and under beech trees, and the long rooting base of the

¹ The colored plate to accompany this article was being made in England and has not yet come to hand. It will be distributed with the next number of MYCOLOGIA.

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COLLYBIA RADICATA (RELH.) QUEL.

stipe can usually be traced to a dead root, from which the plant derives its chief supply of nourishment.

***Agaricus arvensis* Schaeff.**

HORSE MUSHROOM. FIELD MUSHROOM

Plate 137. Figure 2. $\times 1$

Pileus large, convex, 6–15 cm. broad; surface white, becoming yellowish with age or on drying; context white, thick, highly flavored and easily digested; lamellae white to pale-pinkish at first, at length brown; spores ellipsoid, smooth, brown, $9-11 \times 6 \mu$; stipe long, white, often enlarged at the base, 5–10 cm. long, 8–16 mm. thick; annulus of two parts, membranous and white above, radiately split and tinged with yellow below.

This species grows in rich soil in pastures, fields, and wood borders from midsummer to early fall. It resembles the common mushroom, but is larger, with longer stipe, paler lamellae, and a peculiar double annulus. I have often eaten it in Sweden and found it delicious. The slender, wood-loving *Agaricus silvicola* can hardly be distinguished from it at times.

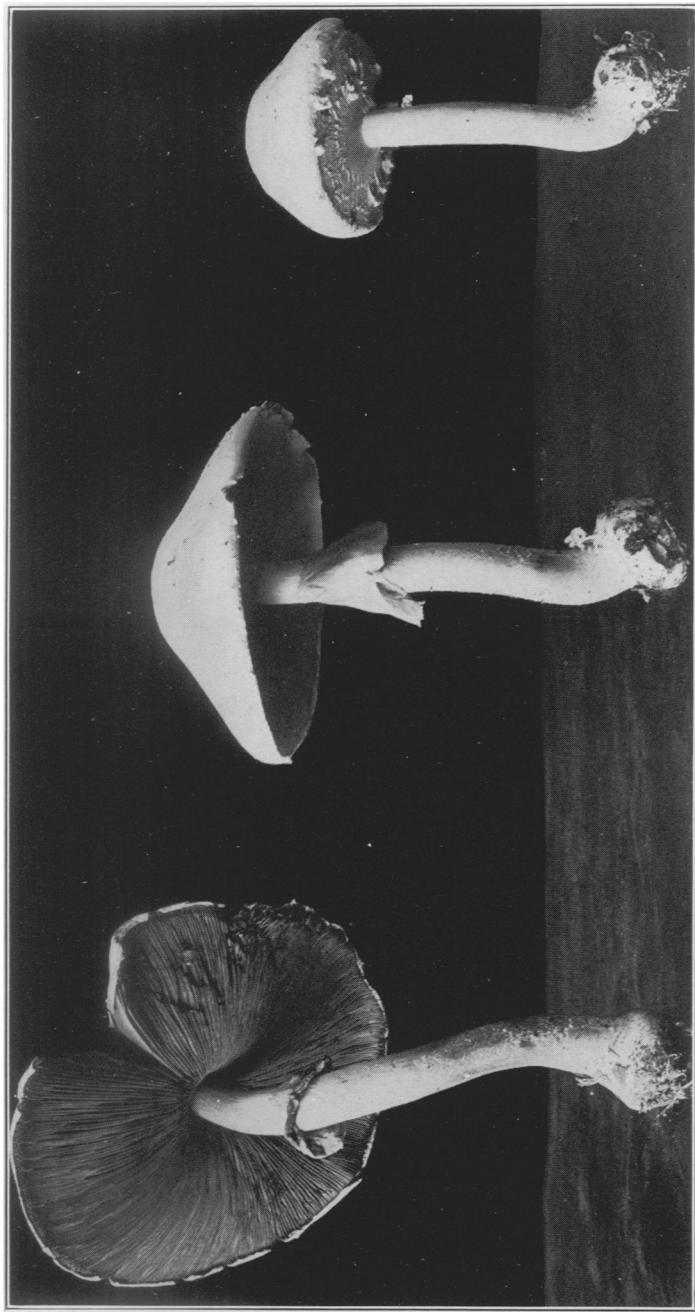
***Agaricus silvicola* Vitt.**

FOREST MUSHROOM

Plate 139. $\times \frac{1}{2}$

Pileus convex or expanded, 5–12 cm. broad, all parts of the plant except the lamellae being white at first and becoming tinged with straw-color in places with age or almost entirely on drying; surface smooth, glabrous or slightly silky; context white; lamellae thin, close, rounded behind, free, pale-reddish-gray when young, becoming darker with age, and finally brown or blackish-brown with a chestnut tint; spores ellipsoid, brown, $7.5 \times 4 \mu$; stipe long, equal, smooth, stuffed or hollow, bulbous, white, 10–20 cm. long and 6–10 mm. thick; veil usually single, forming a thin, membranous annulus decorated with floccose patches below.

This beautiful edible species is of wide distribution, but unfortunately not very abundant. It occurs in open woods and wood borders, in rich soil or vegetable mold. Its smaller size and more simple veil distinguish it from *A. arvensis*.



AGARICUS SILVICOLA VITT.

Lepiota brunnescens Peck

BROWNING LEPIOTA

Plate 137. Figure 4. $\times 1$

Pileus thin, convex or nearly plane, usually obtuse or umbonate, 2–8 cm. broad; the entire plant changing to brown when bruised or after 12–24 hours of drying; surface whitish, the cuticle soon cracking and forming chestnut-colored squamules except in the center, margin often rosy, radiate-rimose at times; context white, taste sweet; lamellae free, at first white, crowded, ventricose; spores ovoid, appendiculate, smooth, hyaline, yellowish in mass, $6-8 \times 4-5 \mu$; stipe equal or slightly enlarged below, white, changing at first to reddish-brown and then to brown below the annulus on drying, fibrous to glabrous, hollow, 3–7 cm. long, 2–7 mm. thick; annulus median, fixed, usually ample and persistent.

This species occurs rather rarely in open woods and grassy places from New York and New Jersey through Ohio and Missouri to southern California. Few collectors know it on sight, but it should be recognized by the brown color which the entire sporophore assumes after about a day of drying. The flesh is white, sweet, and probably edible, but it has not been tested so far as known. The species might be confused by the beginner with small plants of *Lepiota americana*.

Laccaria ochropurpurea (Berk.) Peck

YELLOWISH-PURPLE LACCARIA

Plate 137. Figure 5. $\times 1$

Pileus fleshy, firm, subhemispheric or convex becoming plane or slightly centrally depressed, often very irregular and very variable in size and shape, solitary or rarely gregarious, 5–10 cm. broad; surface hygrophanous, purplish-brown when moist, grayish or pale-alutaceous when dry, unpolished, margin decurved; context edible; lamellae thick, distant, broad, adnate or decurrent, purplish; spores globose, verruculose, $8-10 \mu$; stipe variable, short or long, equal or sometimes thicker in the middle, sometimes at each end, fibrous, solid, concolorous or paler, firm, 3–8 cm. long, 4–12 mm. thick.

This species is known throughout temperate North America, occurring in open grassy or bushy places in thin woods, often associated with its smaller relative, *Laccaria laccata*, of which it

has at times been considered only a larger form. It is edible, but of only tolerable flavor.

***Inocybe geophylla* (Sow.) Quél.**

COMMON WHITE INOCYBE

Plate 137. Figure 6. $\times 1$

Pileus fleshy, thin, conic or ovoid becoming expanded, conically umbonate, 1.5–2.5 cm. broad; surface silky-fibrillose, smooth, commonly white or whitish, rarely lilac; lamellae crowded, rather broad, ventricose, adnexed, white becoming clay-colored; spores ellipsoid, smooth, ochraceous, $8-10 \times 4-6 \mu$; cystidia cylindric-fusoid, $40-60 \times 12-20 \mu$; stipe equal, firm, stuffed, white, mealy at the apex, 2.5–6 cm. long, 2–4 mm. thick.

This species is common on heavy, wet soil on the shaded banks of streams or in low open woods throughout temperate regions. It is so different from most species of *Inocybe* that the beginner is usually puzzled in identifying it. A beautiful pale-lilac variety sometimes occurs, which Boudier has figured in his plate 125. I have found this variety quite abundant in the state of Washington.

***Scleroderma verrucosum* (Bull.) Pers.**

SMALL-WARTED SCLERODERMA

Plate 137. Figure 7. $\times 1$

This rather uncommon species was described and figured in MYCOLOGIA for January, 1910. The illustration on the plate accompanying the present article is made from younger material, and the plants have more purple in them than those represented on the former plate.

***Tremella lutescens* Pers.**

COMMON YELLOW TREMELLA

Plate 137. Figure 8. $\times 1$

Very soft and watery, undulate-gyrose, with entire, naked lobes, the clusters sessile, whitish to pale-yellowish, and finally luteous, 1–5 cm. broad, leaving a very small residue when dried; spores globose, $12-15 \mu$.

This species is widely distributed, occurring commonly on dead

branches of both deciduous and evergreen trees in woods or moist places. The genus *Tremella* contains fungi that are gelatinous, tremulous, immarginate, not papillate, with basidia that become four-parted, each part bearing a single spore. The species must be collected during wet weather, otherwise they will not be seen. After drying, they may be soaked in water to restore them to their original form. Members of closely related genera, such as *Exidia*, *Dacryomyces*, and *Hirneola*, are liable to be confused with species of *Tremella* by the beginner.

***Mycena succosa* Peck**

JUICY MYCENA

Plate 137. Figure 9. $\times 1$

Pileus firm, between cartilaginous and fleshy, campanulate or convex, cespitose, 2–4 cm. broad; surface minutely tomentose, cinereous or very pale reddish-gray, darker at the center, the margin exceeding the lamellae and incurved; context abounding in a thin watery or serum-like juice, changing to purplish and black when cut; lamellae slightly ascending, thin, close, emarginate with a slight decurrent tooth, tapering toward the outer extremity, whitish with a pale-reddish-gray tint; spores subglobose, minute, 4μ ; stipe firm, equal or slightly tapering upward, often curved, minutely tomentose, containing a whitish pith, pale-reddish-gray at the apex, dark-reddish-gray below, 4–8 cm. long, 2–3 mm. thick.

This extremely interesting little species occurs in woods on fallen decayed trunks of deciduous trees. When wounded, it exudes a serum-like fluid which blackens on exposure to the air. The sporophore therefore soon becomes spotted with black when handled and usually turns black on drying, as in the Indian Pipe. *Mycena haematopa* is a related species which exudes a dull-reddish juice when wounded.

NEW YORK BOTANICAL GARDEN.



ILLUSTRATIONS OF FUNGI